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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,770	02/14/2001	Andrew G. Harvey	50325-0509 (3255 )	2267

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EXAMINER
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ZHONG, CHAD

ART UNIT	PAPER NUMBER
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2152

DATE MAILED: 08/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/783,770

Applicant(s)

HARVEY ET AL

Examiner

Chad Zhong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-4, 6, 7, 18-27, 29, 30, 41-46, 48, 49, 60-62 and 64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-4, 6, 7, 19-27, 29, 41-46, 48, 49, 60-62 and 64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### OFFICE ACTION

1. This action is responsive to communications filed 4/21/05.
2. Applicant's arguments filed 4/21/05 with respect to claims 2-4, 6, 7, 19-27, 29, 41-46, 48, 49, 60-62 and 64 have been fully considered and are persuasive. The rejection of claims 2-4, 6, 7, 19-27, 29, 41-46, 48, 49, 60-62 and 64 have been withdrawn. In view of the Appeal Brief filed on 4/21/05, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

#### *Claim Rejections - 35 USC § 112, second paragraph*

3. Claims 18, 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - a. The following terms lack antecedent basis:
    - i. the network devices - claim 18, line 2.
  - b. The claim language in the following claims is murky or not clearly understood:
    - i. As per claim 30, line 2-3 it is not clearly understood whether "a event" refers to "one or more events" in claim 22, lines 10 (i.e. if they are the same, the word such as "said" or "the" must be used);
    - ii. As per claim 18, line 3 it is not clearly understood whether "a event identifier"

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refers to "an event identifier" in claim 21, lines 8 (i.e. if they are the same, the word such as "said" or "the" must be used);

iii. As per claim 19, line 3 it is not clearly understood whether "a subject list" refers to "a subject list" in claim 21, lines 10 (i.e. if they are the same, the word such as "said" or "the" must be used);

iv. As per claim 20, line 3 it is not clearly understood whether "a subject list" refers to "a subject list" in claim 21, lines 10 (i.e. if they are the same, the word such as "said" or "the" must be used);

*Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 6-7, 18-24, 26, 29-30, 41-43, 45, 48-49, 60-62, 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mishra et al. (hereinafter Mishra), US 6,910,070 in view of Peters, US 2002/0087594.

6. As per claim 21, Mishra teaches a method of automatically subscribing a network device (abstract, wherein the clients are subscribing to events) in a network to a plurality of events applicable to a logical group of which the network device is a member (Col. 5, lines 20-32, wherein each agent is subscribing on behalf of a group of clients, the clients 370, 372, 374, 376 that may forms a logical grouping), comprising the computer implemented steps of:

creating and storing a mapping (Col. 5, lines 25-40, the mapping is the names schema 330) that associates a plurality of network devices (clients) with the logical group (agent) that can pass over an event bus (Fig 3, item 315, wherein the channel is the event bus) to which the network device communicates;

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receiving a subscribe request from the network device (through an agent) that includes a network device identifier (names schema stores the network device ID, Col. 5, lines 35-40; Col. 9, lines 45-50) that uniquely identifies the network device and an event identifier (event identifier is the event of interest, see for example, Col. 5, lines 20-25);

looking up the network device identifier and the event identifier in the mapping (event trigger 314 looks up the subscription event and upon detection notify the channel 315, Col. 5, line 60 to Col. 6, line 13; device identifier looked up in name schema for delivery locations, see Col. 6, lines 20-30; Col. 5, lines 20-25);

Mishra does not explicitly teach:

receiving a subject list in response thereto, wherein the subject list identifies all subjects to which the router should subscribe;

sending information to the event bus that requests the event bus to subscribe the network device to all events in the subject list.

However, in a similar system, Peters teaches the concept of generating a list in response to a subscription request and sending the list to a publisher to subscribe clients to corresponding lists, [0032-0033], this list contains identifiers of the clients and the contents/advertisements the subscribers should subscribe to. The list is sent to the content provider, where individualized advertisement based on user identification is pushed down to the subscribers [0035-0037] ).

It would have been obvious to the person of ordinary skill in the art at the time of the invention to combine teachings of Mishra and Peters because generating a subject list containing identifiers of the clients and the contents/advertisements they should subscribe to and receiving the list at the publisher as taught by Peters would lead to reduced burden on the network device as the subscription list is centrally stored on a remote network device.

Mishra, also, does not specifically teach a router, however it would have been obvious to the person of

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ordinary skill in the art at the time of the invention to treat a router as a client device or network device subscribing to events.

7. As per claim 3, Mishera teaches receiving application specific mapping information from an application program and updating the mapping using the application specific mapping information (Col. 6, lines 55-63, wherein application specific protocols are sent back to the subscribing clients, mapping is updated in Col. 10, lines 15-25).

8. As per claim 6, Mishera teaches sending information comprises generating, based on the mapping, a list of all the events that are in the mapping and associated with the network device, and sending the list to an event gateway that is coupled to the event bus (wherein the device specific events are passed from the server 318 on to channel 315, and forward to appropriate agents representing client devices, Col. 10, lines 15-25, Col. 5, lines 20-33).

9. As per claim 7, Mishera teaches the mapping comprises an association of stored values that identify for each of the network devices (Col. 9, lines 45-50), an application (Col. 6, lines 55-65), a group identifier (Col. 5, lines 20-33), an event of the one or more events (Col. 5, lines 60-67), a network device identifier (Col. 9, lines 45-50), one or more published events, and one or more subscribed events (the published and subscribe events are events subscribed by agents, Col. 5, lines 20-33, and published by trigger 314, Col. 5, lines 60-67).

10. As per claim 18, Mishera teaches receiving the device identifier comprises receiving a publish request that includes a network device identifier for one of the network devices in the logical group (Col. 5, lines 35-40) or a group identifier of the logical group, and an event identifier (Col. 5, lines 20-33).

11. As per claim 19, Mishera teaches sending information comprises looking up the network device identifier (look ups are done against schema 330, Col. 5, lines 34-45), or the group identifier, and the

event identifier in the mapping (Col. 5, lines 60 – Col. 6, line 20) and receiving a subject list in response thereto (the list comprising of events that are of interest to the subscribers, Col. 6, lines 64-67; users may further dictate the time to send the subscribed events causing a list to be sent back and list to keep track of history of events, see for example, Col. 8, line 60 – Col. 9, line 5, Col. 9, lines 25-33).

12. As per claim 20, Mishra teaches sending information comprises looking up the network device identifier (look ups are done against schema 330, Col. 5, lines 34-45), or the group identifier, and the event identifier in the mapping (Col. 5, lines 60 – Col. 6, line 20), receiving a subject list in response thereto, and applying the subject list to the network device at the event gateway (the list comprising of events that are of interest to the subscribers, Col. 6, lines 64-67; users may further dictate the time to send the subscribed events causing a list to be sent back and list to keep track of history of events, see for example, Col. 8, line 60 – Col. 9, line 5, Col. 9, lines 25-33).

Mishra does not explicitly teaches router, however it would have been obvious to the person of ordinary skill in the art at the time of the invention to have used router instead of any network device so that routing can be performed on the network.

13. As per claim 22, the claim is rejected for the same reasons as rejection to claim 21 above.

14. As per claim 23, the claim is rejected for the same reasons as rejection to claim 21 and 22 above.

15. As per claim 24, the claim is rejected for the same reasons as rejection to claim 21 and 22 above.

16. As per claims 26, 29-30, 41-43, the claims are rejected for the same reasons as rejection to claims 3, 6-7, 18-20 above respectively.

17. As per claims 45, 48-49, 60-62, the claims are rejected for the same reasons as rejection to

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claims 3, 6-7, 18-20 above respectively.

18. As per claim 64, Mishera teaches a computer-readable medium carrying a mapping service client Application Program Interface (API) comprising:

instructions for a set of invokable operations that allow a client application program hosted in a network device access to a mapping service runtime (network clients subscribe to potential network events, Col. 5, lines 5-25), wherein the invokable operations including at least

an attach operation that allows the client to open a persistent connection (Col. 7, lines 43-50) to the mapping service runtime, the attach operation receives one parameter, having at least an application context that is used to determine a mechanism available to the client (determine if the event is available to the client, Col. 5, lines 60-67);

a detach operation that tears down the persistent connection created by the attach operation (Col. 7, lines 20-25);

an open operation that creates one or more non-persistent channels within the connection that is created by the attach operation (Col. 7, lines 43-52);

a close operation that terminates the one or more non-persistent channels that are created by the open operation (Col. 8, lines 5-10); and

a resolve operation that returns to the client a set of events (Col. 6, lines 10-32),

wherein the set of events is a combination of zero or more publish events and zero or more subscribe events (Col. 6, lines 10-32),

wherein the combination included in the set of events returned by the resolve operation is based on a specified selection criteria (the criteria being is the event of interest to the clients, Col. 5, lines 19-25), and

wherein the selection criteria includes at least a device identification (Col. 5, lines 35-40), an event subject (Col. 5, lines 20-25), and an action desired (action being clients want to subscribe to the event, Col. 5, lines 20-25); and



wherein the mapping runtime service causes the client to receive all events that are associated with a logical group that includes the client, without the client having to store a list of the logical groups in which the client participates and without having to know what events pertain to the client or the logical groups (the logical group is kept at the agent, the agent subscribe on behalf of the client and forward the event to the corresponding clients, Col. 5, lines 15-33, Col. 6, lines 20-32).

Mishra does not explicitly teaches router, however it would have been obvious to the person of ordinary skill in the art at the time of the invention to have used router as a network device so that routing can be performed on the network.

19. Claims 2, 4, 25, 27, 44, 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mishra et al. (hereinafter Mishra), US 6,910,070 in view of Peters, US 2002/0087594, further in view of Fukumoto et al. (hereinafter Fukumoto), JP 2000-207362.

Note, Fukumoto is provided in a previous 'Notice of References Cited' form PTO-892 dated 4/11/2004.

20. As per claim 2, Mishra teaches associated with the network device an event gateway (the gateway here is the agents that represent and subscribe on behalf of clients, Col. 5, lines 20-25) that is coupled to the event bus.

However, Mishra does not explicitly teach subscribing the network device to all the events that are in the mapping.

In a similar system, Fukumoto teaches the concept of authenticating of an Internet user based on a list. Specifically, the list is used to match up user's ID and password, upon proper authentication of individual users, the events corresponding to particular users will be subscribed to the appropriate servers ([0006], [0007], [0022]). It would have been obvious to the person of ordinary skill in the art at the time of the invention to combine teachings of Mishra and Fukumoto because subscribe to all the events that are in the mapping as taught by Fukumoto would lead to reduced burden on the network device as the

subscription list is centrally stored on a remote network device, thus increase the efficiency of management.

21. As per claim 4, Mishera does not explicitly teach receiving application-specific mapping information from an application program in XML format using a data access component that transforms the application-specific mapping information from XML format into a canonical object model format. However, it would have been obvious to the person of ordinary skill in the art at the time of the invention to have used XML programming language to implement Mishera's system to promote cross platform compatibility. Moreover, conversion from XML format into a canonical object model format would have been obvious since both formats are platform independent, conversion into a canonical object model would improve Mishera's system since a canonical data model is a data model independent of any application. For example, a canonical model might use a standard format for dates, such as MM/DD/YYYY. Rather than transforming data from one application's format directly to another application's format, you transform the data from the various communicating applications to this common canonical model. You write new applications to use this common format and adapt legacy systems to the same format. Thus increasing the flexibility of Mishera's system.

22. As per claim 25 and 27, the claims are rejected for the same reasons as rejection to claims 2 and 4 above.

23. As per claim 44 and 46, the claims are rejected for the same reasons as rejection to claims 2 and 4 above.

*Conclusion*

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents and publications are cited to further show the state of the art with respect to method of providing router with subnetwork address pool in a cellular telecommunications network.

- i. US 6404237 Luo et al.
- ii. US 20020087878 Ballen et al.
- iii. US 6710702 Averbuch et al.
- iv. US 5873084 Bracho et al.
- v. US 6477585 Cohen et al.
- vi. US 5959989 Gleeson et al.
- vii. "Publish and subscribe meets the Internet", Loshin, P., Byte (International Edition), Vol. 23, no. 2, p.125-8.
- viii. "TIBCO software deliver wireless information services in Ericsson Solutions", July 1999, Ericsson Press Release.
- ix. "Tibco release toll for business process re-automation", Eugene Grygo, March 2000
- x. "Architecture of the READY Event Notification Service", Gruber et al., 1999

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Zhong whose telephone number is (571) 272-3946. The examiner can normally be reached on M-F 7:15 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BURGESS, GLENTON B can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

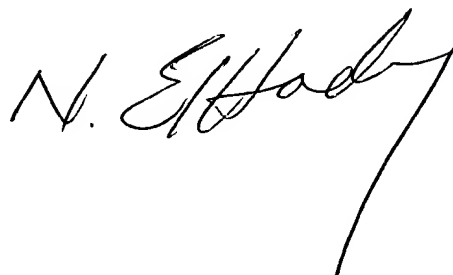
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through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CZ

July 30, 2005

A handwritten signature in black ink, appearing to read "N. El Hadj". The signature is written in a cursive style with a long, sweeping vertical stroke at the end.